India's Walled-in Wildlife

BY HOWARD YOUTH

Guindy National Park is a small wildlife refuge with big problems. Once part of a scrub jungle that covered much of southeast India, the 680-acre park now stands well within the city limits of Madras, India's fourth largest city. A university, village, cemetery, and miles of urban sprawl surround the park, and Guindy's remaining forest is one of the only patches of greenery left for miles around. All that separates the park from its neighbors is a wall around its perimeter, and even that has proven to be porous, as intruders regularly scale it to cut trees for fodder and fuel.

Locked as it is in a growing city, Guindy may seem an extreme example of a park under siege, but similar pressures beset most of the parks in this country of 860 million people and more than 250 million cows. The fate of the inhabitants of India's parks—the remaining 239 lions, 4,000 or so tigers, 20,000 elephants, and many other less charismatic species—hangs in the balance between their need for habitat and local people's need for food, fuel, and other necessities found in the wilds. India is having serious problems addressing those conflicting needs, despite its impressive history of conservation and preservation.

As early as the third century, B.C., Indian leaders such as Ashoka were preaching coexistence between humans and wildlife. The country's tradition of protecting its natural heritage is in good part responsible for the fact that populations of large animals exist at all in such a densely populated country. Many of the large hunting preserves that the Maharajahs and the British began setting aside two centuries ago have survived and are national parks today.

On paper, India's parks policy is impressive. Since independence in 1947, India has created 66 national parks and 330 wildlife sanctuaries and established guidelines that are more comprehensive than most other countries' national parks policies. The Wildlife Protection Act, enacted in 1972 and strengthened in 1991, bans hunting and capture of rare species, prohibits commercial timbering in wildlife sanctuaries, and encourages nongovernmental organizations to report violators to the government.

In the field, though, India's parks management is wanting. Problems abound, including pervasive wildlife poaching, illegal cutting of valuable trees such as sandalwood, and grazing along the poorly defined park boundaries. Also, enforcement of park regulations varies wildly depending on the wildlife official stationed at each park.

Unlike most other developing nations, India has enough guards and wardens to protect park land, but the uneven levels of training conducted by the states leave some parks less protected than others. Also, most park employees are not experienced in wildlife management. "A wildlife warden is basically a forest officer who's done at least two years' training in forestry and a few courses in biology," says V.R. Chitrapu, chief wildlife warden for Tamil Nadu state.

The park administration's inability to devise a system for clearly demarking protected land is another issue that makes India's park policy a paper tiger. For instance, even though many parks have formal management plans with tourism zones, buffer zones (in which some hunting and harvesting of forest products is allowed), and core areas (where wildlife is not to be disturbed at all), there are usually few, if any, signs posted. "How does a villager know he's stepping into the core area from a buffer if there is no indication?" says Preston Ahimaz, Tamil Nadu state organizer at the Worldwide Fund for Nature-India. Even if signs were posted, most local villagers are illiterate and would disregard them.

Under the current park system, local villagers have little incentive to refuse lucrative offers to act as guides for poachers or to cut down trees on park lands, even when they know the land is off limits. "They are left with no way of earning anything inside the park, so naturally, if anyone can offer them something,

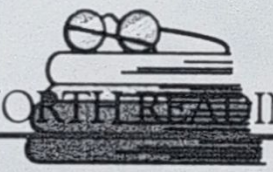
they're willing to do the work," says Bhoja Shetty, Karnataka state organizer of the Worldwide Fund for Nature in Bangalore.

It's become apparent that India cannot ignore its parks' neighbors if it wants to protect wildlife habitat. If nearby residents could find work in parks, they would likely care more about the future of the land. In Keoladeo National Park in Rajasthan, local guides are already teaching visitors about the park's flora and fauna.

But more may be needed. "We have to get people on our side through education and by presenting them with alternatives," says the Worldwide Fund's Ahimaz. A good example of the kind of alternatives Ahimaz has in mind is the "bio-gas" converter, which uses cow dung to produce methane gas for cooking and lighting. Using the converter would have two benefits: villagers would have less need to steal firewood from parks, and they would keep and feed their cattle in stalls (for the sake of collecting dung), which would prevent the cattle from devouring park plants. Ahimaz also recommends wider use of solar cookers and wind power to lessen the need to cut park trees.

Even as it works to protect existing wildlife habitat, India has an opportunity to create more. The country's parks system is made up of three types of parks: national parks, wildlife sanctuaries, and forest reserves. Forest reserves are by far the largest single component of the system, but unlike national parks and sanctuaries, they are not fully protected or patrolled. Forest reserves cover about 15 percent of the subcontinent, but most of this land is reduced to overgrazed scrub or plantations of exotic tree species. Few wild animals call it home.

If forest reserves were managed carefully—integrated into local economies and protected from grazing, poaching, and timbering—so that native forest could regrow, then they might once again shelter wildlife without resort to walls.



WORTH READING

KNOWING OUR LIMITS

BY HAL KANE

Beyond The Limits, *by Donella H. Meadows, Dennis L. Meadows, and Jorgen Randers. Chelsea Green Publishing Company, P.O. Box 130, Post Mills, Vermont 05058. 1992. 300 pages. $19.95 hardcover.*

Twenty years ago, a book called *The Limits to Growth* produced shock waves among economic and business leaders by claiming, contrary to long-held assumptions, that industry could not go on growing forever. Written by three scientists and commissioned by the respected Club of Rome, the book argued that continued growth of population and consumption might outstrip the Earth's natural capacities, and that the resulting environmental decline posed a looming threat to the quality of life—and possibly even to life itself.

To avert this threat, said authors Donella Meadows, Dennis Meadows, and Jorgen Randers, societies had no choice but to slow their growth, consume less, have fewer children, and conserve the natural environment.

The Limits To Growth entered public awareness at the end of the most rapid phase of economic growth the world has ever experienced. World economic output quadrupled from $3 trillion shortly after World War II to almost $12 trillion in 1972. At least in the West, growth and consumption became guiding cultural principles. Up to that point, there had been little cause to question whether growth would go on indefinitely.

Since publication of that seminal book, public awareness of the issues it raised has exploded. People throughout the industrialized world have mobilized to recycle, conserve energy, reduce pollution, and take other actions to protect the health of the environment.

Yet, many measures of environmental health have not improved: industries continue to shirk environmental protections, more people measure self-worth by how much they own, and in the poorest regions, birthrates rage far higher than the prospects for decent livelihoods.

Other problems persist. The advocates of unrestrained growth have never moderated their opposition to messages of the sort found in *The Limits to Growth*. And, largely impervious to the debate about environmental constraints, governments have retained economic growth as the goal that eclipses all others.

It is against this backdrop that the authors who created such a stir two decades ago have issued an arresting sequel, *Beyond the Limits*. The new volume reinvigorates the argument, and in some respects raises the stakes. It does not make any major changes in the original thesis, but restates the original case persuasively—and with updated figures and information. What may be most significant is that 20 years of debate about nature's limits on economic growth, and 20 years more experience and data, have only strengthened the authors' convictions.

Their critics—especially economists